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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 3, 2015/2016

### EES 3016 - ENGINEER AND SOCIETY

(All sections / Groups)

31 May 2016 2:30 p.m. – 4:30 p.m. (2 Hours)

### INSTRUCTIONS TO STUDENT

- 1. This Question paper consists of 4 pages including cover page.
- 2. There is a total of 5 [FIVE] questions.
- 3. Answer ALL questions.
- All questions carry equal marks and the distribution of the marks for each question is given.
- 5. Please write all your answers in the Answer Booklet provided.

#### Question 1

(a) Discuss the importance of literacy as a social indicators towards the development of a nation.

[4 marks]

(b) One thrust under the Eleventh Malaysian plan is "Strengthening Macroeconomic Resilience for Sustained Growth". Discuss TWO macroeconomic strategies under this thrust.

[3+3 marks]

(c) Discuss TWO methods of climate engineering used to reduce carbon dioxide concentration in the atmosphere.

[3+3 marks]

(d) Fresh water shortage is cited to be the next global crisis. Discuss ONE cause of freshwater shortage and ONE method to mitigate this cause.

[4 marks]

#### **Question 2**

(a) Describe FOUR skills needed in technical project management. Your discussion must include the consequences of not using these skills.

[8 marks]

(b) Compare TWO roles of the Board of Engineers, Malaysia(BEM) and the Institute of Engineers, Malaysia (IEM)

[3+3 marks]

(c) Under the Free Trade Agreement (FTA), liberalization in goods, services and investments have amplified the growth of the global economy and improved consumer satisfaction.

Discuss TWO advantages of the FTA.

[6 marks]

#### **Question 3**

Occupational, Safety and Health (OSH) in this country has undergone many stages (a) of development since the tin mining era. Describe the four (4) stages of development before it reached to the current OSH stage.

[4 marks]

Briefly discuss the responsibility of both the employer and the employee in (b) practicing safety at work.

[8 marks]

The Ministry of Human Resources Malaysia, through (c) Occupational Safety and Health (DOSH) is responsible for ensuring the the Department of occupational safety, health and welfare of people at work. Give brief details of the five (5) roles assigned to DOSH.

[5 marks]

The facilities management division has received a report that one of the blocks in (d) the factory is currently having power outage. A team of electrical technicians is sent off to troubleshoot the problem. List down at least three (3) personal protective equipment (PPE) that the technicians must wear prior to carrying out

[3 marks]

#### Question 4

- (a) Name the two (2) organisations regulating the ethics of engineering professionals in Malaysia. Describe two (2) main differences between these two organizations.

  [6 marks]
- (b) Applied ethics is defined as the application of ethical principles on practical problems and conflict situations in different areas of life.
  - (i) Briefly describe the two (2) necessary features for an issue to be considered an "applied ethical issue".

[3 marks]

(ii) Provide in the proper order the five (5) processes involved in resolving an ethical issue.

[5 marks]

(c) In order to uphold the professionalism of engineers, the governing and learned institutions of engineering in various countries require their engineers to adhere to certain Code of Ethics. Briefly explain the importance of Code of Ethics.

[6 marks]

#### Question 5

(a) Compare between occupation and profession. Which category does engineering belong to?

[5 marks]

(b) Briefly describe the importance of Engineering Societies.

[5 marks]

(c) Describe in detail, the path to become a Professional Engineer in Malaysia.

[10 marks]

**End of Paper**